



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/576,490	04/20/2006	Kishor Gajanan Agnihotri	27362U	2404
20529 7590 09/02/2009 THE NATH LAW GROUP 112 South West Street Alexandria, VA 22314				
EXAMINER				
CHIANG, TIMOTHY S				
ART UNIT		PAPER NUMBER		
1796				
MAIL DATE		DELIVERY MODE		
09/02/2009		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/576,490

Applicant(s)

AGNIHOTRI, KISHOR GAJANAN

Examiner

TIMOTHY CHIANG

Art Unit

1796

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 April 2009.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-26 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 20 April 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/CDC)
Paper No(s)/Mail Date _____
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____

DETAILED ACTION

Claim Objections

1. Claims 25 and 26 objected to because of the following informalities: Newly added claims 25 and 26 lack status indicators. Appropriate correction is required.

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
2. Claim 14 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The applicant claims the limitation of a method for dyeing fibers to further comprise a step of preparing a fiber rope for the purpose of carrying cotton fibers. As written, it is unclear to the examiner how the step of preparing a fiber rope further limits the method of dyeing fibers. Further, it is unclear as written how the preparation of fiber rope purposes in carrying cotton fibers, which is understood by the examiner by the preceding claims as being carried by one or more belt(s).
3. Claim 1 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The applicant introduces process limitations to the present claim. The applicant is asked to clarify the structure, specifically that drawn to the "fabric roll".

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. Claims 1-26 rejected under 35 U.S.C. 103(a) as being unpatentable over Kosann et al. (US Pat. 5,917,118, hereinafter "Kosann") in view of Williams et al. (US Pat. 3,056,275, hereinafter "Williams").

Regarding claims 1 and 10, Kosann discloses an apparatus and method for dyeing fibers or filaments (col. 1, lines 49-62) comprising a prewetting trough, a dye bath, a drying arrangement (Figure 1 and col. 3, lines 9-11), and a supporting system comprising a fabric roll guided to pass through the pre-wetting trough (dual-belt conveyor system; Figure 3, structure 61a/b; col. 3, lines 32-37), the dye bath and the drying arrangement for carrying the fibers or filaments for dyeing and drying the said fibers or filaments continuously and homogeneously.

Kosann discloses the invention substantially as claimed above. However, Kosann fails to disclose the apparatus and method for dyeing fibers or filaments to be comprised of a plurality of prewetting troughs, plurality of dye baths, and that the belt conveyor system comprises of a fabric roll.

Such teaching of plurality of prewetting troughs and dye baths are well known in the art. Furthermore, Williams teaches a plurality of prewetting troughs, plurality of dye baths in an apparatus and method for dyeing fibers or filaments utilizing a support system utilizing a dual-belt type conveyor system for the propose of continuously and homogeneously dyeing fibers or filaments.

It would have been obvious to one of ordinary skill in the art at the time Applicant's invention was made to have provided a plurality of prewetting troughs and a plurality of dye baths in Kosann in order to provide for continuously and homogeneously dyeing of fibers or filaments as taught by Williams.

Further, Kosann teaches the dual belt conveyor system to be "perforated top and bottom allowing penetration of the dye solution and other solutions utilized in the process while holding the cotton batt together" (col. 3, lines 35-37). Though Kosann does not explicitly disclose the material of which the perforated belt is to be made of, the examiner contends the applicant's teaching of "fabric roll", or belt, reads on Kosann's disclosure of "perforated belt".

Regarding claims 2-4, 11 and 22, Kosann teaches the dual belt conveyor system to be "perforated top and bottom allowing penetration of the dye solution and other solutions utilized in the process while holding the cotton batt together" (col. 3, lines 35-

37), which meets the limitations of "porous belt" and "two belts". Kosann further discloses "the dual-belt system transports the cotton batt through the bath of the dye applicator and holds the batt together as it is immersed in the dye solution" (col. 4, lines 61-64) which meets the limitation of "wherein the fibers or filaments are carried between the supporting systems.

Regarding claims 5 and 12-13, Kosann discloses an apparatus and method for dyeing fibers or filaments wherein cotton fibers (col. 4, line 9) or filaments are carried between porous belts.

Regarding claims 6-7 and 23, Kosann teaches the dual belt conveyor system to be "perforated top and bottom allowing penetration of the dye solution and other solutions utilized in the process while holding the cotton batt together" (col. 3, lines 35-37). Though Kosann does not explicitly disclose the material of which the perforated belt is to be made of, the examiner contends the applicant's teaching of "wherein the belt is a synthetic or natural fabric" or "blended fabric", reads on Kosann's disclosure of "perforated belt".

Regarding claim 8, Kosann teaches the dual belt conveyor system to be "perforated top and bottom allowing penetration of the dye solution and other solutions utilized in the process while holding the cotton batt together" (col. 3, lines 35-37). The examiner construes Kosann's disclosure of the belt material "allowing penetration of the dye solution and other solutions" as inherently meeting the claimed limitation of "inert to dyeing" in the instant claim. It would be understood by one skilled in the art that a belt allowing dye solution and other solutions to pass through would inherently require the

belt material be inert to dye solution such that the belt material would not interfere or interact with the dye solution or other solutions leading to adherence of dye to the belt material leading to clogging and the lack of penetration as disclosed.

Regarding claim 14, Kosann discloses a method for dyeing fibers or filaments wherein cotton fibers (col. 4, line 9) or filaments are carried between porous belts. Kosann does not specifically disclose a step of preparing a fiber rope for carrying cotton fibers, however secondary reference Williams discloses a method comprising a dual-belt system for dyeing of such "natural and synthetic fibers of any form" including "spun thread" (col. 4, lines 47-49) which the examiner contends meets the limitation of the instant claim.

Regarding claim 15, Kosann discloses a method for dyeing fibers or filaments wherein the dye is a vat dye (col. 4, line 7).

Regarding claim 16, Kosann discloses a method wherein the at least one fiber or filament is subjected to "vat dye" (col. 4, line 7). Applicant's teaching of indigo dyeing reads on Kosann's disclosure as indigo dyeing is a well known vat dye. Furthermore, Kosann discloses an "oxidizing applicator" (abstract) which lends to an inherent disclosure of indigo dyeing as indigo dye is affixed to fibers via oxidative processes.

Regarding claim 24, Kosann teaches a method comprising a dual belt conveyor system as a supporting system in guiding fibers and filaments through the pre-wetting trough (dual-belt conveyor system; Figure 3, structure 61a/b; col. 3, lines 32-37), the dye bath and the drying arrangement for carrying the fibers or filaments for dyeing and drying the said fibers or filaments continuously and homogeneously (col. 1, lines 49-62).

The disclosure of a continuously dyeing of fibers and filaments via a dual belt conveyor system inherently describes a method requiring the belt system to be spooled or rolled in such a way as to "feed back" to the beginning of the dye treatment line, or spooled for collection. The examiner construes Kosann's disclosure as inherently meeting the applicant's teaching of a structure wherein the porous belt or belts form a fabric roll.

Regarding claims 25-26, Kosann discloses "After the cotton batt is dry, the cotton fibers are sent to a picker 110 to break up the batt and return the cotton to a loose fibrous form, and finally to a press 112 to bale the loose fibrous cotton. The dyed baled cotton is thereby made suitable for spinning into dyed yarn" (col. 5, lines 62-67).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TIMOTHY CHIANG whose telephone number is (571)270-7348. The examiner can normally be reached on Monday - Thursday 9:00AM-5:00PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Pyon can be reached on 571-272-1498. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Harold Y Pyon/
Supervisory Patent Examiner, Art
Unit 1796

/TIMOTHY CHIANG/
Examiner, Art Unit 1796
08/27/2009